SYNTHESIS OF ALKYD RESIN BASED ON BLEND OF NAHAR SEED OIL AND KARAWILA SEED OIL

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Abstract

Blend of seed oil; Mesua ferrea and Momodica charantia (50: 50 w/w %) as a potential source of fatty oil in manufacturing air drying long oil alkyd resin was investigated. Monoglyceride process at a temperature of 240 DC was used in the synthesis process due to relatively low acid values of the oils. Alkyd resins were prepared using various proportions of fatty oil, pentaerythritol and phthalic anhydride. Physicochemical properties of oils and prepared alkyd were determined. Film properties of alkyd resins were examined. All films of the resins were shown reasonably low drying time. Water resistance, acid resistance and hardness of the films of the resins were improved with increase of molar percentage of OH groups from 12% to 24% above stoichiometric amount.